

The Framingham Circuit

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Thursday, May. 7 This Month's Meeting

Marjie, KA1HIA

FOOD Season is approaching. FARA Night Out, is just the start. This month we will be having a biannual, after the flea market, pizza meeting. Just wait until Field Day next month!

Submitting Material to the Circuit

Material may be submitted for publication by sending it directly to the editor. This can be done by phone, by US Mail, or via the Internet (preferred). The deadline for each issue is the Thursday, one week before the monthly meeting.

by phone

(508) 435-2055 (before 9:00PM please!)

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President's Message

Don't forget to take your handy-talky (HT) on vacation with you. We just got back from Florida last Sunday following our annual visit to my in-laws who are snow-birds living half the year just south of Melbourne. Anyway, when we got to Florida on Monday, Patriots Day, one of the first things I did was check the local newspaper to see what was happening on the Space Coast. Great! A launch was scheduled for Thursday evening at Cape Canaveral between 6:50 and 7:10pm. It was a Delta 2 rocket carrying four Globalstar satellites. So, Thursday evening my mother-in-law served an early dinner so Nancy, Emily and I could head up the coast and find a nice spot to observe the launch. We left the house a little after 6pm and got over to the coast highway, A1A, and started heading north. At about 6:45pm we were up to Patrick Air Force Base so I pulled into a beach parking lot and we got out of the car and perched ourselves on a stone wall in front of the beach to start the countdown. There were plenty of other people there doing the same thing. All eyes were staring up the coastline toward Cape Canaveral which was visible even though it was maybe twenty miles away. Several gantry towers were visible but you couldn't tell which one had the Delta 2 rocket. Here's where the HT came in handy. I put the hot-rod antenna on the HT and started punching in frequencies of the local repeaters - Cocoa Beach, Marathon, Merrit Island, -- "This is Boeing Mission Control, we are at four minutes, twenty-nine seconds and counting. All system are go." This is great. One of the local repeater clubs is rebroadcasting the countdown live. I embarrass my fifteen year old daughter, Emily, with the radio. After all, being a parent, it's my job. People are coming over to listen to the countdown on my HT. "Three minutes and counting..." [pause]... Weather balloon number five has just given a RED condition and we are now on hold at two minutes and fifty seconds. The weather data will be sent to California where a new flight profile will be generated to compensate for the weather. It will be sent back to Florida then uploaded to the rocket and the launch sequence will be rolled back to the four minute mark and the countdown will resume from there." The next words out of the radio was exactly what I didn't want to hear. "The data has taken too long to upload. We have lost the launch window and the mission is scrubbed. The fuel is being offloaded, this will take about two hours and..." IT'S OVER! I retract the antenna and people come over and ask ME "Is it scrubbed?". I tell them with authority that "the weather was not cooperating and the mission was scrubbed", everyone heads to their cars to leave. This is the fifth time I've tried to see either a Shuttle or rocket launch from Cape Canaveral. I'm 0 for 5. We still had fun. 73

Jim, WTEQW

Field Day Update

by Dave, K1HT

Planning for Field Day 1998 has been moving ahead. A number of the pieces have fallen into place, but already we've had some surprises. First, ARRL has changed the rules! No bonus-point credit for packet or VHF/UHF contacts, and the packet contacts that we've made in the past will no longer count. Also, non-CW digital (e.g., RTTY) contacts will count as a separate mode, just like CW and phone on each band. As a result, we'll still plan a serious effort on VHF/UHF -- the contacts still count. We will not have a packet station. We'll treat RTTY as a "demonstration sport" and have the capability to put one of the HF stations on RTTY, in case there's enough activity to make it worthwhile. Our RTTY expert, Dave WA6ILT, has agreed to guide this effort. Second, Warren K1BQX will soon be moving to the Blue Ridge Mountains of North Carolina, and his generators will not be available! We're grateful to Warren for his generous help.

Continued on page 3...

Pete's Center Insulator

by Pete, KA1AXY

After years of inadequate dipole antennas, I have been looking for a cheap center insulator which will take the strain of a dipole, yet allow easy reconfiguration. Like most hams, I'm cheap. I can't see buying something that I can build myself. Besides, when I build it myself, I can get every detail "just right". I present here a center connection unit for a dipole antenna based loosely on the "PVC Gusher", and incorporating some ideas I stole from a military dipole I once saw.

The hardware is really the designer's choice (heavier gauge for more durability vs lighter gauge for less weight), but here's what I used.

Eye bolts: 3/16" with nuts and washer on the top one, under the cap. I used elastic stop nuts on the inside so they wouldn't come loose. Brass connecting hardware: 1/4" pan head bolts with nuts and washers. I used Loctite on the threads on the clamping bolt.

Chassis mount BNC connector

Copper sheeting, with holes for BNC and 1/4" bolt

The first step is to acquire some 1 inch PVC pipe (10' length :-) and two 1 inch PVC pipe caps. Using a drill press, drill holes in the center of the pipe caps. One should clear the BNC body (3/8") and the other should clear the eye bolt (probably 7/32").

If there's a moulding "blivet" on the inside of the pipe cap (there was a 1/2" dia bump inside mine), use a 5/8" spade bit to trim it down with the pipe cap held upside down (like a cup) in a vise.

Cut down the ends of the eye bolts so there's just enough thread to make it through the PVC and a washer and two nuts (see drawing). Install the top eye bolt, washer and nuts. Use elastic stop nut on the inside, or lock with Loctite. You're going to glue this shut and you don't want nuts rattling around inside.

Press the piece of 1 inch PVC tubing into the top end cap. Should be a jam fit, no glue needed.

With the tubing and pipe cap assembly held horizontally in the vise, drill a 7/32"

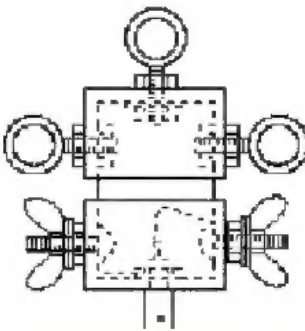
hole through one side of the assembly, and out the other side.

Install the two side eye bolts. Again, use thread locker or elastic stop nuts on the inside. No washers needed. Set the top assembly aside.

Prepare a piece of copper sheet (I used copper EMI tape), which will have a 3/8" hole in one end (for the BNC connector) and a 9/32" hole in the other end (for the brass bolt).

Take the second pipe cap, the one with the hole for the BNC drilled in it, and chuck it in the vise under the drill press, so you can drill through both sides of the pipe cap, about half way between the open end and the inside bottom. Use a 9/32" drill and drill all the way through both sides.

Add the 1/4" brass bolts, pass them from the inside of the pipe cap to the outside. One of them should go through the copper sheet first.



A diagram of the insulator.

[A more detailed version is in this month's newsletter on the club web site](#)

Install the BNC, through the pipe cap and copper sheet. Apply Loctite to the threads, then screw on the retaining nut. A 20 ga. piece of solid wire can be soldered to the center conductor, then under the head of the brass bolt which didn't go through the copper sheet. You might want to make a mark on the outside of the pipe cap so you can tell which leg is hot and which is ground.

Install the clamping nuts on the brass bolts, again using Loctite on the threads before adding the hex nuts. Leave the washers and wingnuts off for now.

Here's the fun part. You need to chuck

the top assembly in the vise again. Drill a hole through the bottom of the PVC pipe which will clear the heads of the brass bolts, plus a little bit. For my unit, it ended up being a 5/8" hole. This is drilled just like the 7/32" hole you did up above...through both sides of the pipe. You're trying to clear the bolt heads when the bottom pipe cap is installed, so you need to make two saw cuts down from the end of the pipe to the edge of these holes. This is best done with the assembly held vertically in a vise, with the uncapped end of the pipe facing up. You should end up with two large slots with rounded bottoms extending from the end of the pipe down about an inch or so. Your goal here is to clear the brass bolt heads as the pipe slides into the pipe cap. Do some test fits to make sure this happens. You shouldn't be able to see the holes when the pipe is bottomed.

If everything looks alright, use some PVC cement and glue the bottom cap onto the top assembly.

You now have a rugged, fairly watertight (you can use RTV around the bolts if you want) dipole center insulator for around five bucks. You also have about 9 feet, 9 inches of 1 inch PVC pipe left over :-)

I used crimp on ring terminals on 14 gauge stranded insulated wire. You can make loops in the wire and attach it to the side eye bolts with string, or, for a quick set up, just run the wire from the brass bolt up and through the eye bolt and out to the end of the dipole.

Of course, you can use an N type connector or a SO-239 if you want. You should probably paint this if you're going to leave it out, so it doesn't degrade in the UV. But hey, it should last several years without paint.

I used mine in a recent QRP contest. It worked great!

Best Wishes

Best wishes to club member Carol Sacks, N1XYG. Carol has been accepted to University of Arizona's Eller School of Management and will be moving to Tucson in July. Recently, Carol did the AIDS ride last year from North Carolina to Washington and raised a large sum of money, including support from FARA. We will certainly miss her bubbling personality!!!

All FARA Team Finishes First

by Sharon, KC1YR

An all-FARA multi-op, single-TX team finished first in North America in the 43rd European DX SSB Contest for 1997. Danny T93M/N1ZPE, Martin AA1ON/G4DZC and Sharon KC1YR ended up 3rd overall in the world (non-Europe) with 1,480 QSOs, 1,437 QTCs and 784,673 points, behind ZW5B and RK9CWW. The team operated from Martin's QTH under the KC1YR callsign. We actually had many more QSOs on 20 meters than either the 1st or 2nd place world finishers, but got creamed by the lack of 15 meter propagation to Europe -- winner ZW5B had 811 QSOs on 21 MHz while we could only manage 5. Better luck this year, we hope!

Computer Logging & QSLs de W1FY

by Steve, AA1IZ

The final courtesy of a QSO is a QSL, but take a look at the backlog of QSL cards in our shack. There are boxes of cards that have not been answered. We need to whittle away at the pile, but more importantly, we need to develop a system to take care of future activity. With a computer logging program we can track QSO's and easily generate labels with QSO information. Sooo, we need your input and help.

INPUT

Any information, thoughts or out and out biases need to be shared. We want the best software available. It should be easy to use (intuitive, as they say) and should be able to import data from CT and hopefully Swiss Log (our current antiquated logging software). Share your information with Steve AA1IZ (sr@ultranet.com). Let him know the name and source of the program you like (or dislike) and why.

HELP

We will need a number of people doing a variety of tasks to make this happen. Someone must be responsible for software, import data from contest logs, backup data, log incoming QSLs, batching response labels, print batches of labels, prepare out going cards, and finally mail the completed cards using SASE or ARRL QSL bureau.

This is a team effort that requires a little bit of time from lots of people. If you have ever used the HF station at the club you really should be involved with this project.

Let's pull together and show the radio world that we understand the importance of the QSL courtesy.

QSL Card



This card was presented to the editor from our special guest, Peter, at the March FARA meeting. An eyeball QSO all the way from Denmark!

License in a Weekend

The calls are out for our recent round of License in a Weekend graduates:

KB1CQF Margaret Sahagian
KB1CQG Stacy Le
KB1CQH Philip Belliveau
KB1CQI Ed Collins

?



Who is this masked ham?
Find out in an upcoming issue of the Framingham Circuit

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In past years, and we wish him a trouble-free move. We can't replace his complete power system, but we'll have to have emergency power for Field Day. A single 5 kW generator (with backup) should meet our needs, but various combinations of smaller generators would work also. If you have a reliable generator (or can borrow one), please let me know!

Third, Danny T93M/N1ZPE has made a number of good suggestions for antennas, especially for 40 meters. So we plan to make some changes this year -- once we figure out where to put various antennas on the site.

A number of FARA regulars have quietly been hard at work, making key arrangements. Their help is crucial, but we can't expect them to do all the work. There's plenty to do ahead of time, to make sure that everything goes smoothly on Field Day weekend: antennas to check out or rebuild, tower sections to work on, rotators to check out, guy ropes to measure and sort -- the list goes on! Most of these are not big tasks; an hour or so from you on a Wednesday evening or a Saturday morning would make a real difference. Please do your part in our teamwork.

The next two Wednesday meetings (7:30 p.m.) are on May 6 and May 20.

Membership Dues

Annual membership dues are as follows: (Make checks payable to FARA)
Regular FARA \$10
Student / Retired \$5
Repeater (voluntary) \$10

FARA Horizons

May 6: Field Day Planning
May 7: Monthly Meeting
May 20: Field Day Planning
May 25: Board Meeting